

Maryland Historical Trust

Maryland Inventory of Historic Properties Number: F-6-108

Name: 10054/MD-77 over Beaver Creek

The bridge referenced herein was inventoried by the Maryland State Highway Administration as part of the Historic Bridge Inventory, and SHA provided the Trust with eligibility determinations in February 2001. The Trust accepted the Historic Bridge Inventory on April 3, 2001. The bridged received the following determination of eligibly.

MARYLAND HISTORICAL TRUST	
Eligibility Recommended _____	Eligibility Not Recommended <u>X</u>
Criteria: <u> </u> A <u> </u> B <u> </u> C <u> </u> D Considerations: <u> </u> A <u> </u> B <u> </u> C <u> </u> D <u> </u> E <u> </u> F <u> </u> G <u> </u> None	
Comments: _____ _____ _____	
Reviewer, OPS: <u>Anne E. Bruder</u>	Date: <u>3 April 2001</u>
Reviewer, NR Program: <u>Peter E. Kurtze</u>	Date: <u>3 April 2001</u>

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**MARYLAND INVENTORY OF HISTORIC PROPERTIES
HISTORIC BRIDGE INVENTORY
MARYLAND STATE HIGHWAY ADMINISTRATION
MARYLAND HISTORICAL TRUST**

MHT NO. F-6-108

NAME AND SHA NO.: 10054

LOCATION

Road Name and Number: MD 77 over Beaver Creek

City/Town: Rocky Ridge X vicinity

County: Frederick

Ownership: X State County Municipal Other

Bridge projects over: Road Railway X Water Land

Is bridge located within designated district?: yes X no
 NR listed district NR determined eligible district
 locally designated other
Name of District

BRIDGE TYPE

- Timber Bridge
 Beam Bridge Truss-Covered Trestle Timber-and-Concrete
- Stone Arch Bridge
- Metal Truss Bridge
- Moveable Bridge
 Swing Bascule Single Leaf Bascule Multiple Leaf
 Vertical Lift Retractable Pontoon
- Metal Girder
 Rolled Girder Rolled Girder Concrete Encased
 Plate Girder Plate Girder Concrete Encased
- Metal Suspension
- Metal Arch
- Metal Cantilever
- X Concrete
 Concrete Arch Concrete Slab X Concrete Beam Rigid Frame
 Other Type Name

DESCRIPTION

Describe the Setting:

Situated in the westernmost part of Maryland's Piedmont physiographic region, Bridge #10054 carries MD 77 over Beaver Creek in eastern Frederick County. The bridge is located approximately one-half mile west of the MD 77 intersection with MD 76. In that location, Route 77 runs in an east-west direction and passes under a Western Maryland steel railroad trestle supported by concrete piers. Beaver Creek is oriented in a north-south direction.

**Describe the Superstructure and Substructure:
(Discuss points identified in Context Addendum, Section C)**

The bridge, which was built in 1928 to 1924 standards, carries two lanes of traffic across Beaver Creek. The bridge is a two-span structure supported by a solid shaft pier. Each span measures approximately 28'-0" in length, and the clear roadway width of the bridge is 24'-0". The structure consists of concrete girders and deck, plain concrete abutments, pier, and wingwalls, and solid incised concrete parapets. Modern metal guardrails flank both approaches but do not extend along the inside faces of the parapets.

A survey of historic concrete beam bridges undertaken by the Maryland State Highway Administration in the Fall of 1995 identified 113 bridges of that type located throughout the state. Nearly one-quarter (26) of that total were double-span bridges; 37 bridges (33%) were multiple span.

Discuss major alterations:

Approach guardrails have been attached to the ends of the parapets. The pier was rehabilitated in 1984. A drawing in the SHA files dating to 1983 relates to repairs of a deteriorated parapet and part of the substructure. At this time, deteriorated concrete between the beams and along the underside of the deck was removed and replaced with pneumatically applied mortar. During the course of these repairs, timber blocking was put into place and one-half of the deteriorated girder bearing areas were replaced at a time. The parapet was also repaired by removal and replacement of deteriorated concrete. In 1994, the concrete curb at the northwest corner of the bridge was removed. Other repairs made in 1994 include the reconstruction of a portion of the northwest retaining wall and the installation of grout bags and riprap in scoured areas.

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HISTORY

When Built: 1928

Why Built: Statewide road improvement programs and local transportation needs

Who Built: State Roads Commission, contract #F 100

Who Designed: Unknown

Why Altered: Alterations were undertaken to repair deteriorated portions of the substructure and superstructure.

Was this bridge built as part of an organized bridge building campaign?: No

SURVEYOR ANALYSIS

This bridge may have NR significance for association with:

☒ A (Events) ☐ B (Person) ☐ C (Engineering/Architectural Character)

Was this bridge constructed in response to significant events in Maryland or local history?

Road improvements in Frederick County were fueled by several events occurring during the early twentieth century. First, the Good Roads Movement, which began in the last decade of the nineteenth century, aimed to improve primary roads throughout the state as well as multiple connecting roads between counties. As the movement progressed, numerous existing roads were widened, straightened, or graded, and many new bridges were built to carry the rebuilt roads. Second, rapidly increasing automobile, truck, and bus traffic also fueled the replacement of existing narrow and weak bridges with wider and stronger concrete structures, many of which were built according to standardized specifications and plans developed by the State Roads Commission (SRC). Third, the State Roads Commission established district engineering offices during the 1910s to aid in intrastate road development, and established a separate bridge department in 1920. This fostered construction of many concrete bridges throughout the state. In the 1920s, the SRC emphasized improving the safety and comfort of primary routes while developing secondary networks and feeder roads. By the 1930s, bridges that were originally deemed adequate had become unacceptable for carrying modern traffic loads and many new structures were built as a result.

When the bridge was built, and/or given a major alteration, did it have a significant impact on the growth and development of the area?

Bridge #10054 participated in the general trend toward upgrading state roads and bridges and improving intrastate access.

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Is the bridge located in an area which may be eligible for historic designation, and would the bridge add or detract from the historic and visual character of the possible district?

No, the bridge is not located in an area which is eligible for historic designation.

Is the bridge a significant example of its type?

No this bridge is not a significant example of its type. Many of its character-deining elements exist in a deteriorated or repaired state.

Does the bridge retain integrity of the important elements described in the Context Addendum?

No, this bridge does not retain integrity of its character-defining elements. The character-defining elements for the superstructures of concrete beam bridges are the slab, the longitudinal beams, and the parapet or railing when integral. For the substructure, the character-defining elements are the abutments, piers, and wing walls. The bridge has undergone extensive repairs to its piers, girders, and parapets.

Is the bridge a significant example of the work of the manufacturer, designer, and/or engineer, and why?

No, this bridge is not a significant example of the work of the State Roads Commission.

Should this bridge be given further study before significance analysis is made, and why?

No, this bridge should not be given further study.

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MHT NO. F-6-108

BIBLIOGRAPHY

Spero, P.A. C. & Company and Louis Berger & Associates
1994 *Historic Bridges in Maryland: Historic Context Report.*
 Maryland State Highway Administration, Baltimore.

State Highway Administration
 Bridge Inspection Reports. On file 707 North Calvert Street, Baltimore.

 As-Built Drawings. On file 707 North Calvert Street, Baltimore.

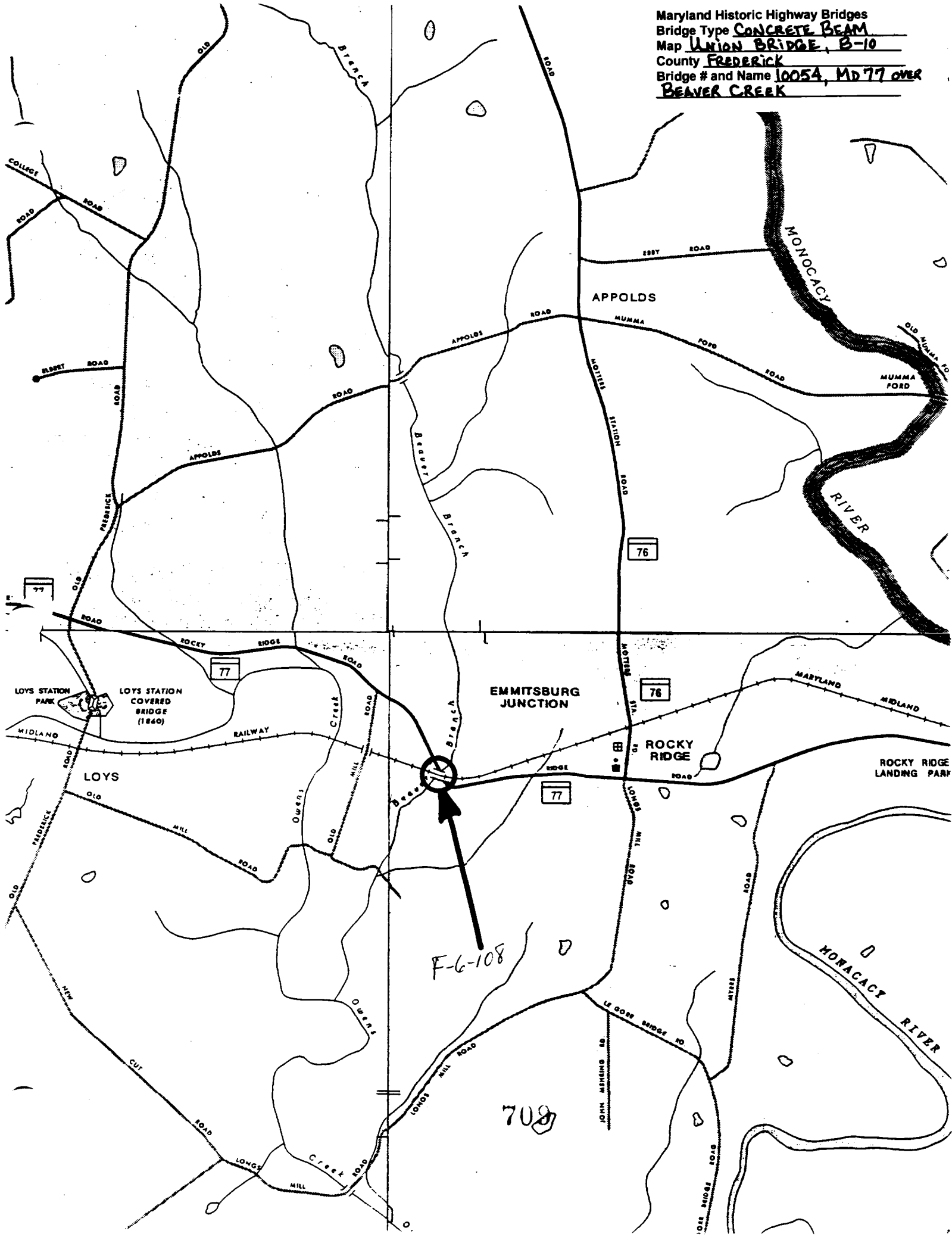
State Roads Commission of Maryland
1958 *A History of Road Building in Maryland.* Baltimore.

SURVEYOR INFORMATION

Name: Gabrielle M. Lanier\Steven Linhart
Organization: KCI Technologies, Inc.
Address: 5001 Louise Dr., Suite 201
 Mechanicsburg, PA 17055

Date: 13 May 1996
Telephone: (717) 691-1340

Maryland Historic Highway Bridges
Bridge Type CONCRETE BEAM
Map UNION BRIDGE, B-10
County FREDERICK
Bridge # and Name 10054, MD 77 over
BEAVER CREEK





Inventory # F-6-108

Name 0054-MO77 OVER BEAVER CREEK

County/State FREPERICK COUNTY / MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description APPROACH EAST

Number 1 of 36 4



Inventory # F-6-108

Name 10054- MDTT OVER BEAVER CREEK

County/State FREDERICK COUNTY / MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description ELEVATION LOOKING NORTH

Number 2 of 36 4



Inventory # F-6-108

Name 10054-MD 770 OVER BEAVER CREEK

County/State FREDERICK COUNTY/MD

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description APPROACH WEST

Number 3 of 36 ⁴



Inventory # F-6-108

Name 10054- MOTT OVER BEAVER CREEK

County/State FREDERICK COUNTY/MID

Name of Photographer FRANK JULIANO

Date 2/95

Location of Negative SHA

Description ELEVATION LOOKING SOUTH

Number 4 of 36

INDIVIDUAL PROPERTY/DISTRICT
MARYLAND HISTORICAL TRUST
INTERNAL NR-ELIGIBILITY REVIEW FORM

F-6-108

Property/District Name: Bridge 10054, MD 77 over Beaver Branch Survey Number: ~~F-6-127~~

Project: Maintenance on Bridge 10054 Agency: SHA

Site visit by MHT Staff: X no yes Name Date

Eligibility recommended Eligibility not recommended X

Criteria: A B XC D Considerations: A B C D E F XG None

Justification for decision: (Use continuation sheet if necessary and attach map)

Based on information provided by SHA, Bridge 10054 does not meet the National Register Criteria for individual listing. The concrete girder structure constructed in 1928 has no known engineering or historical significance. It is one of about 100 structures of this general type extant on Maryland's highways that were built in or before 1928. In addition, it is not located in any known historic district.

Documentation on the property/district is presented in: Project file

Prepared by: Rita Suffness

Elizabeth Hannold December 7, 1993
Reviewer, Office of Preservation Services Date

NR program concurrence: X yes no not applicable

R. Rudman 1-11-94
Reviewer, NR program Date

F-6-108

Survey No.

F-6-127

MARYLAND COMPREHENSIVE HISTORIC PRESERVATION PLAN DATA - HISTORIC CONTEXT

I. Geographic Region:

 Eastern Shore (all Eastern Shore counties, and Cecil)
 Western Shore (Anne Arundel, Calvert, Charles,
 Prince George's and St. Mary's)
 X Piedmont (Baltimore City, Baltimore, Carroll,
 Frederick, Harford, Howard, Montgomery)
 Western Maryland (Allegany, Garrett and Washington)

II. Chronological/Developmental Periods:

 Paleo-Indian 10000-7500 B.C.
 Early Archaic 7500-6000 B.C.
 Middle Archaic 6000-4000 B.C.
 Late Archaic 4000-2000 B.C.
 Early Woodland 2000-500 B.C.
 Middle Woodland 500 B.C. - A.D. 900
 Late Woodland/Archaic A.D. 900-1600
 Contact and Settlement A.D. 1570-1750
 Rural Agrarian Intensification A.D. 1680-1815
 Agricultural-Industrial Transition A.D. 1815-1870
 X Industrial/Urban Dominance A.D. 1870-1930
 Modern Period A.D. 1930-Present
 Unknown Period (prehistoric historic)

III. Prehistoric Period Themes:

 Subsistence
 Settlement
 Political
 Demographic
 Religion
 Technology
 Environmental Adaption

IV. Historic Period Themes:

 Agriculture
 X Architecture, Landscape Architecture,
 and Community Planning
 Economic (Commercial and Industrial)
 Government/Law
 Military
 Religion
 Social/Educational/Cultural
 Transportation

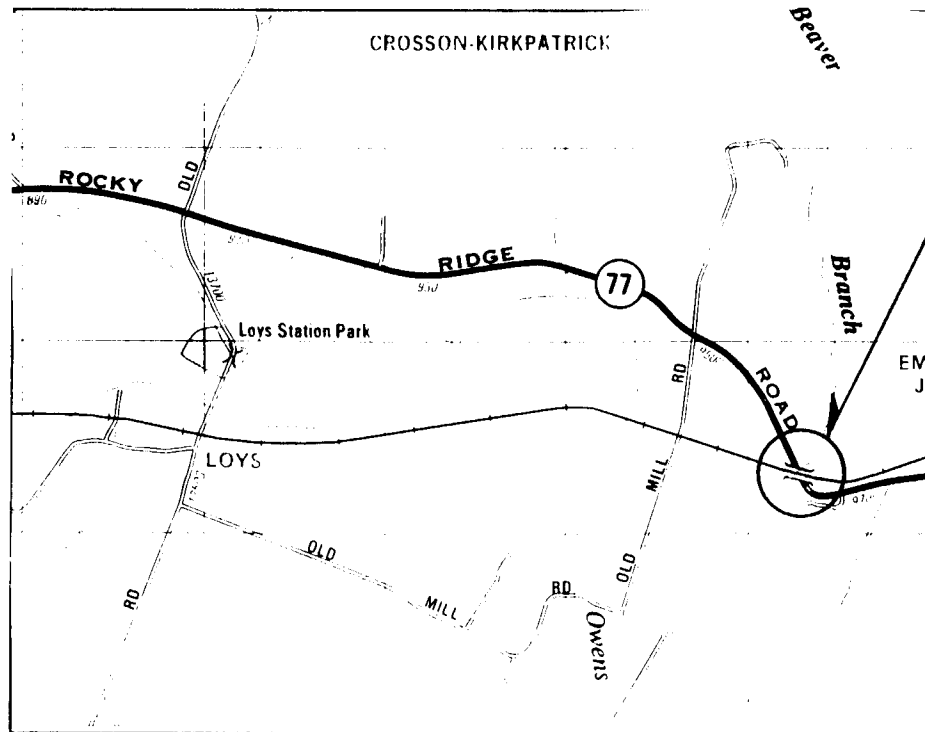
V. Resource Type:

Category: Structure

Historic Environment: Rural

Historic Function(s) and Use(s): Transportation

Known Design Source: NA



BRIDGE 10054
MD. RTE. 77
OVER BEAVER CR.

FREDERICK COUNTY

SHEET NO. 1 OF 1

MARYLAND DEPARTMENT OF TRANSPORTATION
STATE HIGHWAY ADMINISTRATION
BRIDGE INSPECTION AND REMEDIAL ENGINEERING

SCOUR PROTECTION AND GUNITE REPAIRS
BRIDGE NO. 10054 MD. RTE. 77
OVER BEAVER CREEK
LOCATION MAP

SCALE: NONE
DESIGNED BY:

DATE:

CONTRACT NO.:

DRAWN BY: N.D. COLEY

CHECKED BY: K.H. DOHERTY

APPROVED:

CHIEF, BRIDGE INSPECTION AND REMEDIAL ENGINEERING DIVISION

F-6-107
F-6-108

Woodstock

F-6-108

~~F-6-127~~

INTERIOR
EY

FREDERICK

UNITED STATES
DEPARTMENT OF THE ARMY
CORPS OF ENGINEERS

5363 11 NE
(EMMITSBURG)



F-6-108

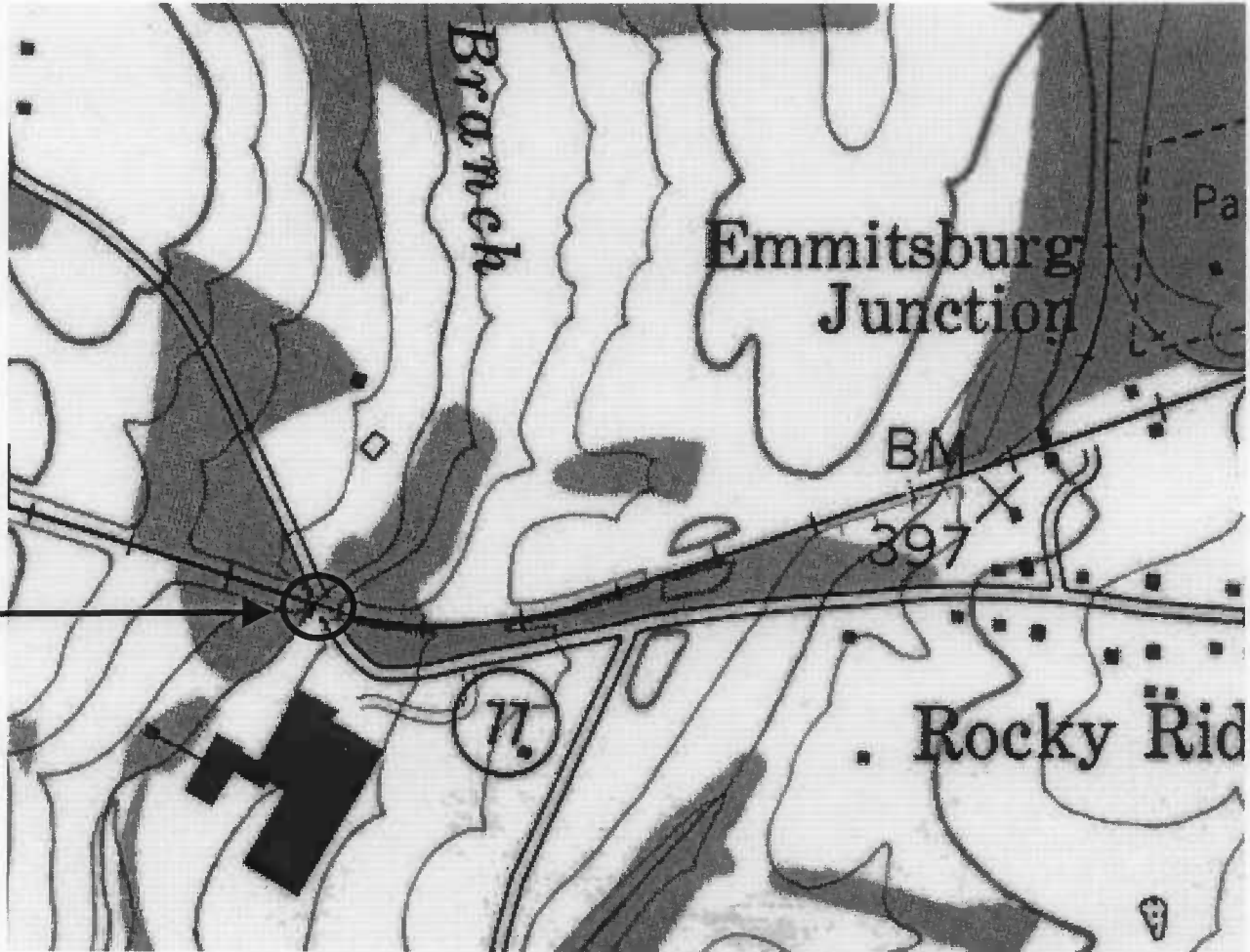
~~F-6-127~~

Bridge 10054

MD 77 over Beaver Branch

Frederick County

Woodsboro Quad





~~F-6-127~~ F-6-108

Bridge No. 10054 Date 11/13/90

MD 77 over BEAVER CREEK

Circle

Upstream Side North Side East

Downstream Side South Side West

Looking Toward NORTH

Other (Describe) File